

Full recovery

Klaus Vrey of Global-Concept tells Bunkerspot how its new tank cleaning system can collect bunker slops without the need for reprocessing

German company Global-Concept GmbH has created a new technology for the fuel oil tank cleaning process which, the company claims, allows collected fuel to be re-used without the need for re-processing.

According to Global-Concept, the technology, called **CATCO-Service**, requires no heavy equipment, no specific temperature of oil or water, and can be used for regular cleaning of ships' storage tanks, as well as road tank wagons (rtw), pipes, hoses, contaminated equipment and even serious oil-spills.

One of the biggest problems associated with tank cleaning is the adhesion of the fuel oil to the tank. With existing processes, this adhesion is combated by chemicals that crack the structure of the oil and allow it to be cleaned with water. As a result, large amounts of water are mixed with the oil. This has to be reprocessed using complex procedures, or burned off – creating unnecessary emissions.

Combating adhesion

CATCO-Service works in a completely different way: It does not disperse the oil, but instead combats its adhesion without touching its structure.

After observing the quality, quantity and consistency of the oil, the ratio of product used for cleanup is decided. The oiled surface is sprayed with **CYTOSOL** – a biological and non-toxic liquid product that has to be applied undiluted. The **CYTOSOL** has to be allowed to impact the oil, coat and isolate it from the surface it adheres to. The time taken for this depends on factors such as the viscosity of the oil, but is a minimum of one hour. The impact of the **CYTOSOL** can be observed when the oil starts moving from the walls of the tank.

Low pressure washing

The oil is then removed through low pressure washing, and the oil and water are collected together. The **CYTOSOL** does not mix with water, so the water will not bind with the oil. After a few minutes, a complete separation of oil and water will occur.

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The separated water can be discarded without the need for further treatment, or can be re-used for further washing. The collected oil, which will have decreased in viscosity, can be re-used as a source of energy without the complex reprocessing that is normally required.

According to Global-Concept, this collected oil is still inside **International Organization for Standardization (ISO)** regulations, but of better quality than it was before. The only difference is in the viscosity, and in the sulphur content of the oil. For example, when you have a 380 centistokes (cst) bunker fuel cleaned up with **CYTOSOL**, the end product is approximately 300 cst.

Although the collected fuel may well be within ISO specs, shipowners are unlikely to use any fuel that has been collected from the bunker tanks directly. This is because legal disputes over fuel would have limited grounds if the slops were to be re-used without being re-tested; the supplier would argue that this was not the fuel that was originally supplied.

Consequently, the technology is more likely to be used by slops disposal companies who normally sell-on reprocessed fuel that has been re-tested under ISO specifications.

Either way, the new tank cleaning system has the potential to offer large cost savings for all players in the bunkering industry.

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